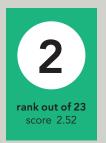


Technisem

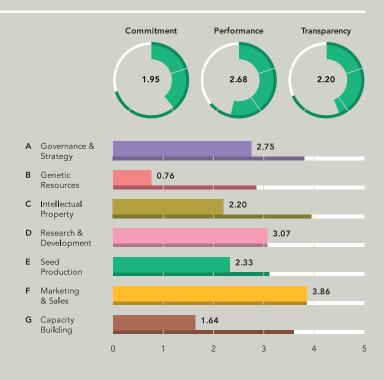
Corporate data Headquarters: Longué-Jumelles, France Ownership type: Private Group revenue (2017): EUR 16,790,000 www.technisem.com Established in France in 1985, Technisem is a vegetable breeding company that specializes in breeding, producing and distributing vegetable seed for tropical countries. It has extensive business activities throughout Africa and also operates in the Middle East, Caribbean and Latin America. The company focuses on Western and Central Africa, where the company's CEO played a central role in establishing Novalliance, a consortium of seed companies across the region. Group member collaborations include activities related to breeding, seed production, sales and capacity building. All of its customers are smallholder farmers, and its main crops are onion, cabbage and watermelon.



Western and Central Africa

Technisem ranks second in the 2019 Index for Western and Central Africa. It performs particularly well in Research & Development and Marketing & Sales, where it is a leader among its peers thanks to its region-wide breeding efforts that encompass local crops and

its presence in over 80% of index countries. The company's unique partnership with several other West and Central African seed companies, through the Novalliance group, boosts its score in Governance & Strategy. The company's lowest score in Genetic Resources reflects a lack of reported positions on the conservation and use of genetic diversity in the region and benefit-sharing. In addition, Technisem's Transparency score could be improved if the company disclosed in greater detail its activities to improve access to seeds for smallholder farmers. With regard to formalization of company commitments in corporate policies and strategies, there is significant room for improvement.



Leading practices

Through Novalliance, Technisem has been formalizing its collaboration with 45 seed companies worldwide, and primarily in West and Central Africa. Technisem states that the alliance was set up to help develop the seed sector in the region, in principle through the establishment of partnerships with local companies rather than the creation of subsidiaries in Africa. The alliance includes index companies Technisem, Tropicasem, Nankosem and Semagri. Novalliance aims to open around 200 stores across the region by 2025. The group is managed by job committees, each composed of managers from member companies. Technisem has a broad breeding program, both in and outside of Western and Central Africa, which aims to adapt global vegetable crops to tropical conditions and improve local African crops. In the region, the company shares its breeding programs with its African Novalliance partner companies in Burkina Faso, Cameroon and Senegal, across various climatic conditions. Notably, the company has variety testing locations in about 60% of the index countries.

Technisem has capacity building activities in 60% of the index countries, more than any of its peers. It involves up to 32 staff per country, organizing training on good agronomic practices and appropriate input usage.

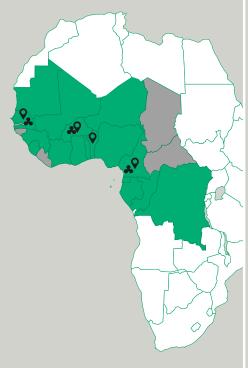
The company produces seed in Benin, Burkina Faso, Cameroon and Senegal.

Areas for improvement

Technisem is encouraged to increase public disclosure regarding its access to seeds-related activities in Western and Central Africa.

The company has a broad breeding program with locations in multiple countries around the world. It is encouraged to articulate a strategy on the conservation and use of genetic resources, covering both crops in and outside its portfolio.

Building on its extensive experience in offering capacity building activities in Western and Central Africa, the company is encouraged to broaden these initiatives, orienting these toward nextgeneration and women smallholder farmers as well.



Operations in scope

- Countries in scope
- Company presence
 Production location
- Breeding station/R&D

Notable findings

Since 2013, through financial donations, skills donations and field visits, Technisem has regularly supported the SEED Foundation, a non-profit endowment fund headquartered in France, that works with smallholder farmers in Africa to improve food security and living conditions.

■ Technisem acknowledges that the practice of saving seed for the next season is common among smallholder farmers in Africa. Although the company states that it does not limit the practice in countries where on-farm seed saving is legal, it emphasizes that because improved varieties are developed and the seed produced by professionals, this guarantees germination quality and varietal purity, which is not the case for farmsaved seed.

Technisem reports that it engages directly with smallholder farmers in the countries where it sells its seed, in order to understand smallholder market preferences and demand for breeding programs. The company's breeding program focuses on adapting global vegetables to regional specificities and on improving local African crops.

The company follows a strict quality management procedure, whereby all seed is either tested in the four African production countries by an independent laboratory or in France by the company's own laboratory.

In Burkina Faso, in collaboration with its Novalliance partner Nankosem, the majority (95%) of seed is produced by smallholder farmers. On these activities the company also collaborates with cooperatives. Out of all the index companies, Technisem has the largest portfolio of local crops available in Western and Central Africa.

The company reports that its portfolio considers the differing capacity levels of smallholder farmers. It offers open-pollinated varieties for all of its crops and hybrids for several crops. Its extensive local crop portfolio also reflects its focus on regionally important crops and varieties.

Technisem field staff provide guidance to smallholder farmers on good agronomic practices regarding the appropriate use of inputs, in particular by referring them to its sister company Jardinova, which markets natural solutions for the protection of soil and plants. The company highlights that using improved resistant varieties is key to reducing the use of pesticides.

For the distribution of its seeds, Technisem primarily works through its Novalliance partners. Through these local partnerships, Technisem's seed is sold in 120 stores in Africa, while ensuring that remote areas are reached. The company however notes that security considerations regularly hamper the effective distribution of seeds in the region, especially in remote areas.

Through its local partners, Technisem collaborates with the African Intellectual Property Organization to tackle the sale and use of counterfeit seed on the continent. It also aims to protect smallholder farmers against counterfeits by providing them with the knowledge and means to denounce the practice.

Index crops in portfolio	Sales							Seed type				Source											
in portiono	BEN	BFA CM	R CAF TCE	O CIV	COD GN	Q GAB	GHA (GIN GNB LI	BR MLI	MRT	NER	NGA	COG	SEN	SLE	GMB TG	о н	ybrid	OPV	GM	Own breeding program	Public research institute	Licensed from other company
Vegetables																							
Cabbage		• •)		•																		
Carrot		• •)				•																
Cauliflower		• •)																				
Cucumber		• •)		•		•	•															
Eggplant		• •)		•																		
Gourd		• •)																				
Green bean		• •)		•																		
Lettuce		• •)		•		•																
Melon		• •)																				
Okra)																				
Onion)																				
Pepper (hot))																				
Pepper (sweet))															•					
Pumpkin																							
Squash																							
Tomato																							
Watermelon		• •			•		•		•														

Portfolio information

Benin (BEN), Burkina Faso (BFA), Cameroon (CMR), Central African Republic (CAF), Tchad (TCD), Cote d'Ivoire (CIV), DR Congo (COD), Equatorial Guinea (GNQ), Gabon (GAB), Ghana (GHA), Guinea (GIN), Guinea-Bissau (GNB), Liberia (LBR), Mali (MLI), Mauritania (MRT), Niger (NER), Nigeria (NGA), Republic of the Congo (COG), Sénégal (SEN), Sierra Leone (SLE), The Gambia (GMB), Togo (TGO)

Local crops in portfolio

Amaranth	African eggplant	Brede mafane	Celosia	
Hairy nightshade	Jew's mallow	Roselle	Spider plant	Yardlong bean